REMARKS

Reconsideration of the present application is respectfully requested in view of the following remarks. Prior to entry of this response, Claims 1-19 were pending in the application, of which Claims 1, 4-11, and 17-18 are independent. In the Office Action dated September 16, 2003, Claims 6 and 10 were rejected under 35 U.S.C. § 112, Claims 1-12 and 15-19 were rejected under 35 U.S.C. § 102(b), and Claims 12-14 were rejected under 35 U.S.C. § 103(a), Claims 7-10 were objected to. Following this response, Claims 1-19 remain in this application. Applicants hereby address the Examiner's rejections in turn.

I.   Amendment to the Specification

In the Office Action dated September 16, 2003, the Examiner objected to the drawings which is addressed below in Section III. The specification has been amended to address the drawing objections as well. Applicants respectfully submit that the amendment to the specification adds no new matter at least because the text added to the specification is supported by the application; specifically, by the drawings as filed.

II.   Objection to the Claims

In the Office Action, the Examiner objected to Claims 7-10 as containing various informalities. Claims 7-10 have been amended to address these informalities and do not narrow the claimed subject matter. Applicants respectfully submit that the amendments overcome this objection and add no new matter.

III.   Objection to the Drawings

In the Office Action, the Examiner objected to the drawings as containing various informalities. Subject to the approval of the Examiner, it is proposed to replace FIGs. 4 and 5 with the attached replacement FIGs. 4 and 5. Applicants respectfully submit that replacement FIGs. 4 and 5 overcome this objection and add no new matter.

IV.   Rejection of the Claims Under 35 U.S.C. § 112, Second Paragraph

In the Office Action, the Examiner rejected Claims 6 and 10 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention. Claims 6 and 10 have been amended to more clearly recite the invention, and Applicants respectfully submit that the amendments overcome this rejection and add no new matter.

V.   Rejection of the Claims Under 35 U.S.C. § 102(b)

In the Office Action, the Examiner rejected Claims 1-12 and 15-19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,790,668 ("*Tomko*"). Applicants respectfully traverse the rejection of Claims 4, 6, 8, 10-11, and 17-18. Claims 1, 5, 7, and 9 have been amended to more clearly recite the invention, and Applicants respectfully submit that the amendments overcome this rejection and add no new matter.

The present invention is directed, for example, to an authentication system based on biological data, in which a biological template may be pre-registered in an IC card,

and communication of contents between the IC card and a sensor unit are encrypted, so that authentication may be carried out without disclosing the biological data to a client PC. In contrast, *Tomko* discloses a system for encrypting a profile. For example, in *Tomko*, fingerprint data and encrypted profiles (name, address, photo, etc.) of a person are input to a database of the system. On a match with a fingerprint already in the database, the encrypted profiles of the person are decrypted, thereby allowing the person to see the profiles.

A.   Regarding Claim 1

Claim 1, for example, is directed toward encrypting communication contents between a portable unit (for example, IC card 10 in FIG. 10) and a personal authentication unit (for example, sensor unit 20 of FIG. 1). In *Tomko*, when fingerprint verification succeeds, the information indicative of the fact is not encrypted to send it to the database. Therefore, *Tomko* at least does not disclose an encryption means for encrypting the registration data stored in a storage means in executing personal authentication based on the registration data and new input information, and supplying the encrypted registration data to a personal authentication unit which is communicatively connected to the portable unit and executes the personal authentication by using the registration data obtained by decrypting the encrypted registration data as, recited in Claim 1.

B.   Regarding Claim 4

For the same reasons above regarding Claim 1, *Tomko* at least does not disclose a tamper-resistant decryption means for obtaining registration data by decrypting a ciphertext supplied from a portable unit for storing the registration data and outputting the ciphertext obtained by encrypting the registration data, as recited in Claim 4.

C.   Regarding Claim 5

For the same reasons above regarding Claim 1, *Tomko* at least does not disclose an encryption means for, in executing a personal authentication based on the registration data and new input information, supplying a ciphertext obtained by encrypting the registration data stored in the said storage means to a fixed section which is communicatively connected to said portable unit and performs transfer processing including encryption between said portable unit and a plurality of personal authentication units for performing personal authentication by using the registration data obtained by decrypting the encrypted registration data, as recited in Claim 5.

D.   Regarding Claim 6

For the same reasons above regarding Claim 1, *Tomko* at least does not disclose an first tamper-resistant decryption means for obtaining registration data by decrypting a ciphertext supplied from a portable unit for storing the registration data and outputting the ciphertext obtained by encrypting the registration data, as recited in Claim 6.

-18-

E.   Regarding Claim 7

Claim 7 is a computer medium claim corresponding to the subject matter recited in Claim 1. For the same reasons above regarding Claim 1, *Tomko* at least does not disclose causing said computer to execute an encryption procedure for encrypting the registration data and supplying the obtained ciphertext to said personal authentication unit when executing the personal authentication by using the registration data obtained by decrypting the encrypted registration data, as recited in Claim 7.

F.   Regarding Claim 8

Claim 8 is a computer medium claim corresponding to the subject matter recited in claim 4. For the same reasons above regarding Claim 4, *Tomko* at least does not disclose a tamper-resistant personal authentication unit having a computer and executing a personal authentication on the basis of a ciphertext supplied from a tamper-resistant portable unit for storing registration data and outputting a ciphertext obtained by encrypting the registration data, said medium storing a program which when executed performs a method comprising, as recited in Claim 8.

G.   Regarding Claim 9

Claim 9 is a computer medium claim corresponding to the subject matter recited in Claim 5. For the same reasons above regarding Claim 5, *Tomko* at least does not disclose a tamper-resistant fixed section which has a computer and obtains registration data by decrypting a ciphertext supplied from a tamper-resistant portable unit for storing

registration data and outputting a ciphertext obtained by encrypting the registration data,

encrypts the obtained registration data by using a predetermined cryptographic key, and

transfers the ciphertext to a plurality of personal authentication units for executing

personal authentication, as recited in Claim 9.

H.   Regarding Claim 10

Claim 10 is a medium claim corresponding to the subject matter recited in Claim

6. For the same reasons above regarding claim 6, *Tomko* at least does not disclose a

tamper-resistant fixed section which has a computer and obtains registration data by

decrypting the ciphertext supplied from a tamper-resistant portable unit for storing

registration data and outputting a ciphertext obtained by encrypting the registration data,

encrypts the obtained registration data by using a predetermined cryptographic key, arid

transfers the ciphertext to a plurality of personal authentication units for executing

personal authentications, as recited in Claim 10.

I.   Regarding Claim 11

For the same reason above regarding Claim 1, *Tomko* at least does not disclose

an encryption means for, when a personal authentication is to be executed, encrypting

the registration data stored in said memory; or supply means for supplying the

registration data encrypted by said encryption means to a personal authentication unit,

as recited in Claim 11.

J.   Regarding Claim 16

For the same reasons above regarding Claim 1, *Tomko* at least does not

disclose an encryption means for generating a first ciphertext by encrypting the

registration data with the random number generated by said random number generating

means, generating a second ciphertext by encrypting the random number by using a

key obtained from said personal authentication unit, and supplying the first and second

ciphertexts to said personal authentication unit, as recited in Claim 16.

K.   Regarding Claim 17

For the same reason above regarding Claim 1, *Tomko* at least does not disclose

a computer readable program code means for causing a computer to encrypt, when the

personal authentication is to be performed, the registration data and to supply the

encrypted registration data to the personal authentication unit, as recited in Claim 17.

L.   Regarding Claim 18

Claim 18 is directed toward, for example, an embodiment as depicted in FIG. 4.

For the same reasons above regarding Claim 1, *Tomko* at least does not disclose a first

decryption means for obtaining registration data by decrypting the ciphertext supplied

from said first encryption means, or a second encryption means for encrypting the

registration data obtained by said first decrypting means with a predetermined

cryptographic key and sending the obtained ciphertext, as recited in Claim 18.

Accordingly, independent Claims 1, 4-11, and 17-18 patentably distinguish the

present invention over the cited art, and Applicants respectfully request withdrawal of

this rejection of Claims 1, 4-11, and 17-18. Dependent Claims 2-3, 12-16, and 19 are also allowable at least for the reasons above regarding independent Claims 1, 11, and 18 and by virtue of their respective dependencies upon independent Claims 1, 11, and 18. Accordingly, Applicants respectfully request withdrawal of this rejection of dependent Claims 2-3, 12-16, and 19.

VI.   Conclusion

In view of the foregoing remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims. The preceding arguments are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding argument in favor of patentability is advanced without prejudice to other bases of patentability.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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-22-